

Appl. No. : 10/763,897
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AMENDMENTS TO THE CLAIMS

Please cancel Claims 12-15.

1 (previously presented): An apparatus for trapping a micro-crystal, comprising:

a base;

a gripping mechanism for gripping a micro-crystal in a droplet placed in a predetermined location on said base, said gripping mechanism comprising a movable gripping member for gripping the crystal in the droplet;

a trapping mechanism for trapping the micro-crystal gripped by said gripping mechanism, said trapping mechanism comprising a movable trapping loop for trapping the crystal gripped by the gripping member in the droplet, said loop being insertable in the droplet and configured to retain liquid of the droplet therein by closing the loop with the liquid using its surface tension when separated from the droplet; and

a controller for controlling and coordinating movement of the gripping member and movement of the loop to grip the crystal with the gripping member inside the loop in the droplet and to separate the crystal from the droplet together with the gripping member and the loop, thereby retaining the crystal inside the loop with liquid of the droplet.

2 (previously presented): The apparatus as recited in Claim 1, further comprising a lifting device on said base for separating from the droplet the micro-crystal gripped by said gripping mechanism and trapped by said trapping mechanism.

3 (previously presented): The apparatus as recited in Claim 1, further comprising a device on said base for observing and displaying the trapped condition of the micro-crystal.

4-6 (canceled)

7 (previously presented): The apparatus as recited in claim 1, further comprising:

a feed mechanism for placing a droplet containing crystals in a predetermined location on said base.

8-9 (canceled)

10 (previously presented): A method for trapping a micro-crystal, comprising:

placing a droplet containing micro-crystals in a predetermined location;

gripping one of the micro-crystals in the droplet by a gripping member;

placing a loop into the droplet and positioning the loop to enclose the micro-crystal being gripped inside the loop, said loop being configured to retain liquid of the

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droplet therein by closing the loop with the liquid using its surface tension when separated from the droplet; and

separating the micro-crystal being placed inside the loop from the droplet while maintaining the position of the micro-crystal being gripped by the gripping member and enclosed by the loop, thereby retaining the crystal inside the loop with liquid of the droplet with surface tension of the liquid.

11 (previously presented): The method as recited in Claim 10, further comprising observing and displaying at least said steps of gripping, placing/positioning, and separating.
12-15 (canceled)

16 (previously presented): A method for trapping a micro-crystal, comprising:

placing a droplet containing micro-the crystals in a predetermined location;

gripping one of the micro-crystals in the droplet;

inserting a loop into the droplet and placing the crystal being gripped by a gripping member in an area inside the loop; and

separating the micro-crystal being placed in the area inside the loop from the droplet together with the gripping member and the loop in a condition where the crystal is placed in the area inside the loop while being gripped by the gripping member thereby retaining and trapping the crystal in the area inside the loop with surface tension of the droplet solution therein.

17 (previously presented): The method as recited in Claim 16, further comprising observing and displaying at least said steps of gripping, inserting and placing, and separating.